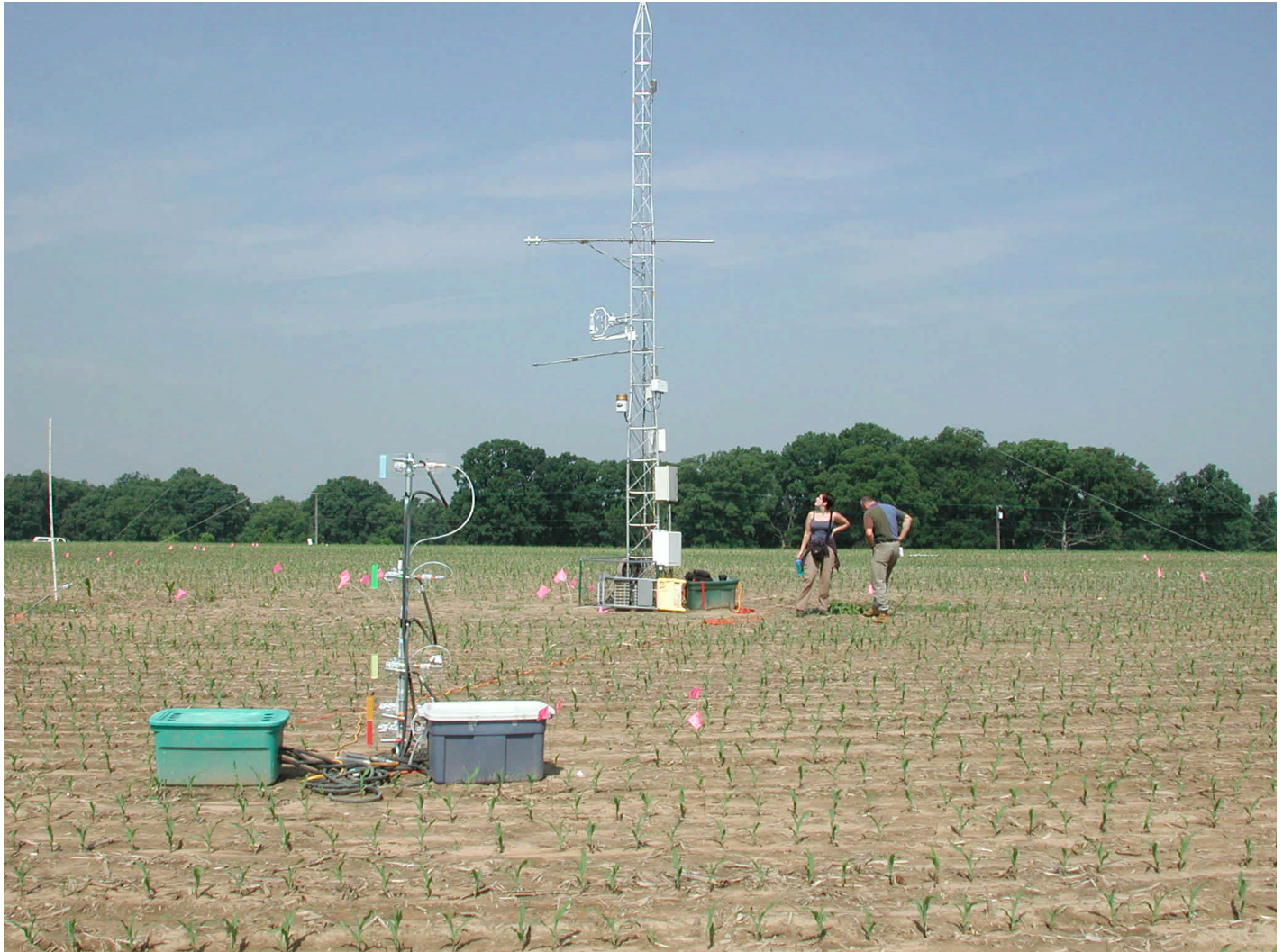


Atmospheric Monitoring of Pesticides and Carbon

A meaningful environmental and economic risk assessment is dependent upon obtaining accurate atmospheric, surface, and subsurface fluxes of water and agricultural chemicals. One of the main objectives of this research is to develop process-based land-surface-atmosphere models which describe energy, water, pesticide, and carbon fluxes at the small watershed scale using remote sensing, soil moisture, surface temperature, vegetation cover, landscape roughness, and soil erosion distribution data, etc...



Here an eddy covariance system (large tower) measures 3-dimensional wind speed patterns and meteorological variables essential for determining water, pesticide and carbon fluxes from agricultural land into the atmosphere. This tower also has various instruments which allow energy fluxes to be determined. The eddy covariance measurements along with pesticide vapor density measurements (small tower in front) allow us to determine pesticide fluxes entering the atmosphere as a function of soil and climate variables.

Contacts: Bill Kustas	bkustas@hydrolab.arsusda.gov
John Prueger	prueger@nsl.gov
Timothy Gish	tgish@hydrolab.arsusda.gov
Laura McConnel	McConneL@ba.ars.usda.gov

Link to Publications: